Facilitating Acceptance of Alternative Communication Devices in Classrooms by Teachers

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ALTERNATIVE COMMUNICATION DEVICES
IN CLASSROOMS BY TEACHERS

Senior Honors Thesis
Department of Communicative Disorders

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STATEMENT OF THE PROBLEM

There exists a number of persons who lack adequate speech for communicative purposes. Many of the non-vocal children and adults from these populations have benefitted from the development of various alternative communication devices. The non-vocal individual is one whose speech does not provide a functional means of meeting communication needs. However, this does not necessarily mean that the non-vocal individual has no speech or vocalization at all, nor does it mean that the individual may not develop fully functional speech in the future. (Vanderheiden, 1975). The devices used with these people allow an increase in the abilities to meet various communication needs. Such devices make it possible for the user to transmit desired messages.

There is a wide variety of residual speech abilities among handicapped persons. There is correspondingly in this population, a wide range of individually appropriate solutions or approaches to allow for the development of effective communication systems. Additionally, a necessary prerequisite for successful intervention with any alternative communication device is its acceptance by both the individual user and those with whom he communicates. (Vanderheiden & Grilley, 1975). The attitudes of the user of alternative devices and the attitudes of those with whom he communicates in his environment, influence the impact the

device is likely to have on the ability to communicate (Creech & Viggiano, 1981). Techniques must be used that can facilitate receiver acceptance of the device usage. Effective techniques used to enhance receiver acceptance results in more positive user and receiver attitudes. The more positive the attitudes, the greater the probable impact of device use for effective daily communication.

One large population of non-vocal people includes children receiving intervention services through public school systems. Many of these children are excellent candidates for alternative system use. As of this time, there is limited research which describes successful techniques that can aid in facilitating device acceptance by teachers in classroom settings.

REVIEW OF RELATED LITERATURE

The review of related literature discussion is divided into the following three main areas of findings: 1) Acceptance of handicapping conditions and of people with disabilities, 2) Acceptance of alternative communication devices and effects of information on acceptance level, and 3) Information regarding prior receiver training for facilitation of device usage.

<u>Acceptance of handicapping conditions and of people with</u>
<u>disabilities</u>

Attitudes toward, and acceptance of, disabled persons
has been the focus of much research.   A number of
investigators report a conclusion that physically
handicapped individuals are often viewed less favorably than
their nondisabled counterparts. An attitude toward an
object, idea, or person is an enduring construct that seems
to have a cognitive component, an affective component, and a
behavioral tendency (Triandis, 1971). The cognitive
component consists of the beliefs about the attitude object;
the affective component consists of the emotional feelings
connected with the beliefs; and the behavioral tendency is
the readiness to respond in a particular way. Belief refers
to the information that a person has about other people,
objects, and issues. This information may have a positive,
negative, or neutral effect toward the development of an
attitude about specific objects, ideas or poeple (Ostram,
1969). Reviews of early studies noted stereotypic attitudes
held by various population groups. Physically handicapped
individuals are often viewed less favorably than their
nondisabled counterparts (Ayer, 1970; Larsen, 1975; Panda &
Bartel, 1972; Rapier, Adelson, Carey & Croke, 1972). More
recent findings suggest that negative attitudes about
disabled persons continue to be found in their nondisabled
counterparts (Makas, 1988; Condon, 1986; Marinelli, 1984;

Hahn, 1988; Yuker, 1988).

Two reviews on attitudes of the nondisabled toward persons with disabilities (Barker et al., 1953; Siller, 1976) reached similar conclusions: attitudes toward persons with disabilities are multi-dimensional and may be affected by the degree and type of handicap. Overall, these attitudes proved to be rather negative. People respond differently toward different types of physical disability. The inappropriateness of behavior associated with disabilities, rather than the actual severity of disabilities, may be the cause of a disabled person's rejection by others.

Several studies provide evidence that a fairly consistent hierarchy of acceptance toward disability groups may exist. Following populations consisting of normal and gifted individuals, those with physical disabilities such as asthma, arthritis, and heart trouble are among the populations more preferred or accepted (Horne, 1985). Physical disablement, mental retardation, and mental illness seem to be among the least accepted handicaps, ranking just above those disabilities viewed as self-imposed (ex-convict, alcoholism, and drug addiction). These groups are most likely to be rejected by societal members (Grand, Bernier & Strohmer, 1982; Schneider & Anderson, 1980; Horne, 1983).

The attitudes handicapped students have toward themselves also affect their social, psychological, and

academic growth and ultimately their functioning in society. These self-attitudes are greatly influenced by the attitudes and opinions others hold. Historically, these self-attitudes of handicapped students were mainly influenced by the family and the few school personnel and peers with whom they interacted. With the current emphasis on educational mainstreaming, enhanced social academics, and professional opportunity legally mandated for the disabled, the possible influence of many others in the environment has now greatly increased. Many disabled students who formerly received educational services in segregated settings are now placed for at least part of the school day in regular classrooms (Horne, 1985).

Clearly, federal legislation mandating movement toward integration of handicapped children (Public Law 94-142, The Education for All Handicapped Children Act of 1972) and people with disabilities (Americans with Disabilities Act of 1990), professionals and advocates have necessarily begun to search for effective methods to break down barriers of uncertainty and prejudice on the part of teachers and other service providers, employers, and peers (National Information Center for Handicapped Children and Youth, 1991). Until disabled persons are seen as individuals, who, like all people have differing skills, interests, and personality traits, the ultimate outcome of legislation mandating integration and equal opportunity will be

unpredictable (Donaldson, 1980). Handicapped persons will continue to bear the consequences of unfavorable labels, expectations, and fear on the part of persons who control their life opportunities until improved education about and exposure to people with disabilities are widely available (Datillo & Smith, 1990).

Horne (1985) stated, "There are many unanswered questions important to understanding professional, peer, and parent attitudes and acceptance toward the handicapped. What techniques can be used to attempt to produce attitude change toward disabled persons, and why have attitudes been consistently negative throughout the related research?" It is certain, however, that research in the area of acceptance and attitudes toward the handicapped will continue to gain momentum, and in the process, become more sophisticated.

Acceptance of alternative communication devices and effects of information on acceptance level

Despite important advances in the development and application of alternative communication systems, there is a scarcity of research and documentation concerning the sociocommunicative aspects of augmented/natural speaker conversations, and the impact which this type of interaction has on individuals, communities, and society in general (Warrick, 1988). However, there are several studies reporting on aspects that may influence acceptance and

attitude formation toward alternative communication devices (Creech, 1981; Kraat, 1985; Cavalier, 1987; Silverman, 1988).

Mathy-Laikko and Coxson (1984) investigated listener reactions to alternative communication. They found that prior information and knowledge about alternative communication played an important role in the formation of more positive attitudes. It was found that those facilitators who had acquired more knowledge about these forms of communication were more likely to have positive attitudes toward the devices and the users. Based on their study of listeners' preferences of synthetic and natural speech, Mirenda, Eicher, and Beukelman (1989) provided a foundation for research to examine the issue of social acceptability of communication device users. It was shown that listeners who were provided information on synthetic speech before hearing it were more likely to accept it's use as compared to those who were not provided such information.

In a recent study by Gorenflo and Gorenflo (1991) the following questions were answered: a) What are the attitudes of nondisabled persons toward physically disabled nonspeaking individuals who use various alternative communication devices? b) What effect does the presence (or absence) of information about the nonspeaking individual have on attitude formation toward nonspeaking persons using different devices? c) What factors are associated with

attitudes toward communication aid users?

The results of this investigation showed that attitudes are significantly more favorable toward an individual using an aided, technological device such as a voice-output communication aid (VOCA) than toward an unaided, augmentative communication technique. This study also revealed that additional information concerning the nonspeaking individual (background, age, family characteristics, personality traits, and individual interests) has an effect on the formation of more favorable attitudes toward a nonspeaking individual using alternative communication techniques (Gorenflo & Gorenflo, 1991).

Overall, the study by Gorenflo and Gorenflo (1991) implies that to increase interaction and communicative interaction between nonspeaking and able-bodied persons, much more is needed than information about the person's physical status, intelligence, academic achievements, and social activities The use of computer-based communication systems may also be necessary to reach the goal of increased interaction and communicative interaction between nonspeaking and able-bodied persons. When information is obtained about the individual users and their particular devices, attitudes will be more positive toward a nonspeaking individual using an alternative communication system. The more favorable these attitudes, the greater the impact the device is likely to have on the ability to

communicate.

Jones and Guskin (1984) have described the effects that information has on interaction. They stated, "What evidence tells us is that when little additional information is available about a handicapped individual, people who are asked to state their preferences report less willingness to become close with a handicapped rather than a nonhandicapped person."

The impact the device may have also depends upon the attitude of the user. If a person, who can benefit from alternative communication, either refuses to use it or uses it only when absolutely necessary, its potential impact will be reduced. Also, members of the person's family may believe that using alternative devices is likely to reduce his or her attempts to speak. Family members may think that the use of devices will allow the user to become dependent on non-verbal communication. By communicating through the device, there will be no need to communicate orally. However, there is at least one chance in three that such intervention will not reduce speech attempts but will, in fact, facilitate speech usage (Silverman, 1980).

There have been some attempts to determine systematically the level of acceptability of alternative communication devices to users and others (Gorenflo, Eulenberg, & Casby, 1987). Duncan and Silverman (1977) stated, "Such devices are likely to be acceptable to most

users and those with whom they interact if they understand

the following:

1.   Intervention with alternative communication does
not mean that the speech-language pathologist has given up
on improving speech.

2.   The alternative communication strategy is intended
to supplement the speech the person has; the goal is total
communication.

3.   Learning and using an alternative communication
device is highly unlikely to result in reduced attempts at
speech.

4.   Learning and using an alternative communication
device appears to facilitate speech in some clients. The
use of such a strategy may be, in fact, one of the most
successful speech facilitation techniques for the
severely communicatively impaired.

5.   It is important for the patient to have an
alternative mode of message transmission to meet his or her
immediate communication needs if speech is not adequate
for the purpose."

Obviously then, both the potential user of the

alternative communication device and those with whom he

communicates will have some reservations about his using any

alternative communication device.   (Silverman, 1980).   The

conclusion learned from this review of the literature

suggest that these reservations can be reduced by users and

receivers learning more about alternative communication

devices. Blackstone (1991) states, "During the 1990's many

more people of all ages and backgrounds will be learning

about alternative communication devices. To increase the

acceptance of alternative communication devices, we need the

following:

1. ways to change attitudes about technology and its role in our lives, as well as the lives of those with disabilities.

2. research in the technical learning styles of all groups expected to operate augmentative/alternative communication devices.

3. alternative methods of instruction that improve the quality and effectiveness of learning and reduce its costs.

4. a concerted effort to learn from those who are expert users what it means to be operationally competent and how to get there."

Society builds ideas regarding each person's character from previous observations and knowledge of human behavior. Warrick (1988) has recommended that we conduct studies which give us greater understanding of the way in which attitudes towards device users are shaped and affect interaction. We need to develop an understanding of what those attitudes are, and how they are translated into interaction behaviors, experiences, and acceptance.

Information regarding prior receiver training for facilitation of device usage

Currently, university curricula for teachers do not regularly include augmentative/alternative communication training. Professionals currently must search out ongoing, continuing education to establish fundamental

augmentative/alternative communication skills (Van Tatenhove, 1991). This may include joining various associations, such as the International Society for Augmentative and Alternative Communication (ISAAC) and the United States Society for Augmentative and Alternative Communication (USSAAC), and subscribing to professional journals and newsletter, such as Communication Outlook, Communicating Together, and Augmentative Communication News. These education resources are growing as more conferences, workshops, and publications become available.

Van Tatenhove (1991) emphasized that ongoing training requires a comprehensive team approach. Dynes, Cathers, Peet & Edwards (1991) have also suggested this approach. They state, "Current augmentative/alternative communication technology is varied and frequently changing. Thus, in order to plan for alternative communication competence, intervention must be based on a comprehensive team evaluation." The diverse combination of individual issues related to physical access, communication, and engineering requires the expertise of several clinical and technical professionals. The comprehensive team evaluation focuses on communication needs and physical/linguistic skills provides the foundation for expanding an alternative communication system and planning intervention to achieve increased communicative interaction.

Communicative interaction is a dynamic process between at least two people. It is governed by rules of discourse, social roles, rules for social interaction, mutual understanding of a language, rules for language use, and individual strategies for achieving desired ends (Kraat, 1985). Interaction becomes even more complicated between persons using alternative communication devices and their speaking partners. Device users communicate with a variety of conversational partners. The terms partner, advocate, coach, interpreter, and facilitator are used to describe people who all play roles in facilitating interaction. Adult partners, primarily teachers, have been the major focus of alternative communication interaction skill training (Blackstone, 1991). A prerequisite to helping adult partners learn effective interaction skills with device users is understanding how they learn. How one approaches a learning task is important. Blackstone (1991) states, "The following must be kept in mind when learning effective interaction skills:

1. Adults bring an "ability to use conventional modes, forms and rules for interaction and their own interaction style" to a communicative exchange.

2. Most natural speakers (no matter what their profession) are unprepared to interact with persons who use alternative communication devices.

3. If adults don't know what to do, they feel uncomfortable, incompetent, even stupid.

4. Trainers must be able to help create a positive emotional climate.

5. It requires understanding and guided practice to alter well-established patterns of interaction.

6. If you sense resistance, get it on the table. Spend time upfront and save time later!"

In an interview, George Karlan (1991) stated the importance of training classroom teams to employ environmental communication teaching techniques with students with severe disabilities. He systematically addresses the need for adults in classrooms to change their behaviors and create opportunities for students with severe disabilities to communicate. Karlan (1991) stated, "This program emphasizes the following procedures:

Develop Activity Based Objectives. Lots of time is spent mapping out class activities and identifying communication objectives within each activity (i.e., transferring IEP goals into "life"). Also, positioning of devices and use during functional activities is considered.

Teach A Cueing And Prompting Hierarchy.
Pause. (show video example of people NOT PAUSING and video example of workshop participants pausing);

Use open ended questions (who, when, why, where, etc.);
Request clarification ("I don't understand, tell me another way?");

Give choices (Do you want___or___");

Model ("ask me like this.")

Guided Practice And Feedback. Observers come into classrooms one time per week and fill out a checklist. Teachers/instructional assistants analyze their own behaviors."

Any user of an alternative communication device will find himself in a variety of settings. It is inevitable that children using these devices will attend school.

Appropriate educational programming for children with
language handicaps needs to include specific methods for
facilitating acquisition of communicative behaviors. A
recent study indicates that teachers generally did not
provide a responsive classroom communicative environment for
developmentally delayed children in either child-directed or
teacher-directed activities. In fact, the teachers often
were either nonresponsive or responsive in a limited way to
the children's attempts to initiate communicative
interactions. There were few observed instances in which
the teacher contingently responded to the child's
communicative initiations in ways that led to interaction
maintenance (Pecyna Rhyner et al., 1990). The low
proportion of teacher contingent responsiveness indicates
that a) the teachers only occasionally responded to the
children's communicative initiation efforts, and b) in the
instances in which teachers contingently responded to the
children's initiations, they frequently responded in ways
that led to termination rather than maintenance of the
interactions. Obviously there are problems in facilitating
the transition and acceptance of alternative communication
devices in the classroom by teachers.

There are several communication intervention programs
and descriptions of specific teaching procedures which would
be appropriate for users of alternative communication
devices (Kangas & Lloyd, 1988). The emphasis for

intervention should be on functional communication. The selection of an approach to intervention is based on the belief that all individuals are ready to communicate. Strategies designed to give the individual user some immediate power over the environment and to provide a means of taking a more active role in daily activities should be the goals (Calculator, 1988).

Conclusions

Research based on the acceptance of alternative communication devices by teachers and the facilitation of these devices in the classroom is somewhat limited. Basically, little information is available about the specific problems faced by teachers and other receivers in classroom settings when such devices are used. This study is designed to reveal information valuable to teachers and other professionals regarding teacher acceptance of alternative communication devices. Perceived problems and possible problem solutions to facilitate the acceptance of these devices will be discussed.

PURPOSE AND OBJECTIVES

This study attempts to identify problems and problem solutions regarding teacher acceptance of alternative communication devices. The further purpose of the study is to determine how teachers can more successfully accept and

respond to alternative communication devices used in
classroom situations.

Objectives

The three objectives of this study were:

1. To conduct a search of existing literature relative
to a) acceptance of handicapping conditions and of people
with handicaps; facilitating that acceptance, b) acceptance
of alternative/ augmentative devices and the effects of
information on acceptance level, and c) information
regarding prior receiver training for facilitation of device
usage.

2. Through the development and administration of a
questionnaire, teachers who successfully deal with children
using such devices in the classroom revealed the depth of
their experience with children who use such devices, prior
and present feelings of device use in the classroom,
previous knowledge and training, information not available
during training, and self-discovered techniques helpful to
facilitate acceptance of device use.

3. To outline an inservice for teachers and others
revealing the information discovered through this research
project.

PROCEDURES

Population and Sample

The population questioned were special education
teachers in the Box Elder School District and Jordan School
District. Criteria for inclusion were teachers: a) who
have had one or more students using alternative
communication devices in their classrooms, b) who were
employed full or part time in the proposed school districts,
and c) who have been successful with children using such
devices in classroom settings. A definition of "successful"
was determined by the researcher and Barbara Bryner, CCC-SLP
at the Foothill School in Brigham City, Utah.
"Successful" teachers were defined as having the following
characteristics:

1. Organizational skills used in the classroom to help
those using devices communicate with peers (allowing peers
to work with user, and having devices readily available to
the user at all times).

2. An established rapport with device users and their
parents (teacher is involved and understands desires and
needs of user at school, keeps the lines of communication
open with parents, and tries to involve everyone in the
communication process).

3. Desire, curiosity, and motivation regarding
alternative communication devices (researches related
literature, reads about devices and how they are used,

experiments with a variety of classroom techniques to allow optimal use of devices, and self-initiates own ideas to help user communicate fully with all conversational partners).

Design

After gaining permission from the Box Elder and Jordan School Districts to conduct the study, the researcher met with Barbara Bryner, CCC-SLP at the Foothill School in Brigham City, Utah to describe the subject selection procedure. Mrs. Bryner and the examiner generated a list of the subject-selection criterion and identified all subjects within the district who met the criterion. Trisha Pehrson, CCC-SLP at the Jordan Valley School in Sandy, Utah was also asked to identify teachers who met the selection criteria in the Jordan School District.

The researcher then distributed letters of transmittal to all subjects revealing the purpose and importance of the study, good reasons for completing and returning the questionnaire to the researcher, and assurance of confidentiality (See Appendices A and B).

Data and Instrumentation

The researcher met with the selected teachers twice. The purpose of the first meeting was to a) distribute letters of transmittal, b) reveal the purpose of this study,

c) distribute the questionnaires, and d) observe classroom procedures and techniques with student using alternative communication devices. This meeting required approximately twenty minutes in each classroom.

The purpose of the second meeting was to a) gather the questionnaires, and b) to speak directly with teachers about pertinent information relating to the study.

Questionnaire

With careful planning and methodology, the questionnaire is a very valuable research tool in education. The major steps that must be taken to carry out a successful questionnaire survey include: 1) defining objectives, 2) selecting a sample, 3) writing items, 4) constructing the questionnaire, 5) pretesting, 6) preparing a letter of transmittal, and 7) sending out the questionnaire and follow-ups (Borg & Gall, 1989). Analysis of the results and preparation of a technique to release information gathered follows.

The preceding steps were followed in the development and administration of the particular questionnaire used in this study. Again, the design of a questionnaire was central to completion of this study. It was necessary to determine what was helpful and not helpful in facilitating the transition of device use into daily communicative situations in the schools. The questionnaire also

determined what information should be presented in an inservice training to teachers and others working with children who use alternative communication devices.

Inservice Generation

An outline for an inservice training was generated by the researcher from the data gathered through the questionnaire. Various techniques, attitudes, and helpful and not helpful information for facilitating the acceptance of alternative communication devices are revealed.

Analysis

Objective One

Using the information gathered from the administration of the questionnaire to special education teachers, comparative analysis was conducted to determine the most valuable information to be used in the inservice outline.

RESULTS

The questionnaire was given to 13 special education teachers in the Box Elder and Jordan School Districts. The return rate was 13 of 13 (100%). Teachers in the Box Elder District represented 5 of 13 participants (38%), and Jordan District represented 8 of 13 (62%). Results from each of the eight sections of the questionnaire are reported.

Section I contained questions relating to general

information about teacher experience. Of the 13

respondents, one (8%) currently teaches preschool; nine

(69%) teach kindergarten through 6th grade; three (23%)

teach grades 7-12. Five teachers (38%) have special

education certification in mild and moderate; three (23%)

are certified in severe; two (15%) are certified in mild,

moderate, and severe; one (8%) is certified in moderate and

severe; one (8%) is certified in severe and resource; and

one (8%) is certified in severe and regular education. Of

the 13 respondents, four (31%) have been teaching 1-5 years;

three (23%) have been teaching 6-10 years; and six (46%)

have been teaching 11-15 years. The total number of years

teaching special education differs slightly. Four (31%)

have been teaching special education 1-5 years; five (38%)

have been teaching special education 6-10 years; and four

(31%) have been teaching special education 11-15 years.

Section II requested information concerning educational

background and computer experience. In their respective

areas of study, ten of thirteen (77%) have received a

bachelor's degree, and three (23%) have received a master's

degree.

Results of computer usage by teachers is reported in

Table 1. The table shows the percentages of respondents who

use a personal computer at home and/or at school. The

approximate duration of computer usage per day is also

provided.

Duration of use per day

	Yes	No	1/2-1 hr.	2-3 hrs.	3-4 hrs.
Teachers using personal computer at school	62%	38%	62%	25%	13%
Teachers using personal computer at home	23%	77%	100%	–	–

Table 1. Personal Computer Usage By Teachers and Duration Use

As Table I shows, the majority of respondents (62%) use a personal computer at school. Of those who do use a computer at school, the majority (62%) only use it 1/2 to 1 hour each day. Also, the majority of respondents (77%) do not use a personal computer at home. All who do, use it 1/2 to 1 hour each day.

Regarding previous computer experience, ten respondents have received inservice training; eight have taken general courses at a university; and seven have applied self-teaching methods.

Section III asked each respondent of their previous experience and training with augmentative and alternative communication systems. First, respondents were asked to report previous training regarding communication for the speechless. Responses were provided in the form of (1) the type of training received, and (2) the duration of that training. **Table 2** shows the responses of the thirteen

respondents.

	Duration			
Training	1 qtr.	2 qtrs.	3 qtrs.	6 qtrs.
University class	2	1	1	
Sign Language	1	3		
Hands-On training				1
	Ongoing	1 hr.	6 hrs.	
Personal training from SLP	4	2	1	
	10 hrs.	16 hrs.		
Teacher workshops	1	2		
	1 hr.	2 hrs.	6 hrs.	2 days
Inservice training	1	1	1	1

Table 2. Previous training received in any aspect of communication for the speechless.

The majority of teachers (62%) have had training or classes at a university regarding communication for the speechless. All respondents are also receiving or have received current training regarding communication for the speechless from a speech-langauge pathologist, or through teacher workshops and inservice training. However, the duration of these various training sessions is somewhat limited.

Respondents were also asked to list their previous training _specifically_ regarding alternative communication

devices. Only one teacher reported training at a university (class in computer assisted technology). The remaining twelve teachers (92%) reported never receiving training regarding alternative communication devices at a university level. The majority of respondents, 7, are receiving ongoing training from a speech-language pathologist. Three have received inservice training, and three have attended the Utah Augmentative/Alternative Communication Training Conference. Also, one respondent provides training workshops on augmentative/alternative communication systems.

Respondents reported that the following training and information would be more helpful in the classroom setting regarding alternative communication devices: 1) specific training on each device used in classroom settings, 2) how to use, maintain, program and troubleshoot device, 3) where to locate new funding for programs, devices, and materials, and 4) how to teach and model ways of incorporating device use into conversational speech and academic activities. Teachers also reported their desire to know when and how training and programming of device usage takes place.

Eight of thirteen teachers (62%) reported that the best instructional method to meet their needs of additional training would be hands-on experience and training with device users and various alternative communication systems. Other suggestions of helpful training methods were: training in small student groups, inservice training,

presentations of each device by a speech-language
pathologist, and video-taped presentations of how devices
are used interactively in the classroom. One teacher
stated, "I want to see how a device is used over a long
period of time. I would like to see a video of a device
user across an entire school day." Teachers also expressed
desire to include parents in training; to show what's being
done in the classroom and how their children can benefit
from increased device use at home as well

Section IV requested information regarding teacher
experience with children using devices in the classroom.
Six teachers (46%) had one current device user in their
classrooms; four (31%) had two current device users; two
(15%) had four; and one (8%) had eight. Also, eight
teachers (61%) have had one device user in their classrooms
in the past; three (23%) have had zero; one (8%) has had
four; and one (8%) has had eight.
Many alternative communication devices are represented in
this study. It is evident, however, that the most common
devices used are the Touch-Talker, Dynavox, and various
computer systems and programs. The majority of respondents
(54%) reported that no children in their classrooms are
using devices functionally; four (31%) reported that one
child was using the device functionally; and two (15%)
reported functional use by two children.

Device	Number of Devices In All Classrooms	Percentage
Touch-Talker	8	27%
Dynavox	5	17%
Intro-Talker	3	10%
Power Pad	2	7%
Computer Systems	5	17%
Light-Talker	2	7%
Speech Viewer	1	7%
Touch Window	1	7%
Language Master	1	7%
Dial Scan	1	7%
Unicorn Board	1	7%
TOTAL	30	100%

Table 3. Alternative Communication Devices currently being used in the classrooms of participating teachers and percentage of usage across classrooms.

Respondents were also asked in which environments devices were used. **Table 4** shows percentages of reported use in various environments encountered across an entire school day.

Environment	Reported Percentage
On the school bus	8%
One-on-one with the teacher	92%
One-on-one with the aide (s)	92%
One-on-one with peers	69%
In the lunchroom	23%
During snacktime	15%
During free-play	31%
During classroom instruction	92%
During recess	8%
During P.E.	8%

Table 4. Percentage of alternative communication device usage across environments.

Twelve teachers (92%) reported that devices were being used in the following three environments: one-on-one with the teacher, one-on-one with the aide (s), and during classroom instruction. Also, nine teachers (69%) reported devices being used one-on-one with peers.

An approximate percentage of time that devices are used across an entire school day were given. Results are as follows: one teacher reported usage of 0-10%; four reported usage of 10-20%; two reported usage of 20-30%; one reported usage of 30-40%; two reported usage of 40-50%; one reported usage of 50-60%; one reported usage of 60-70%; and one reported usage of 90-100%. From this we can see that 77% of these devices are reported as being used less than 50% of

the entire school day. Only 23% of these devices are used
more than 50% of the school day.

Fifty-percent of the devices used in these classrooms
go home at the end of the school day. The majority of
respondents, ten, reported that the devices are not used at
home communicatively (77%). Seventy-seven percent of the
respondents also think that devices should go home.
However, some teachers stated that devices should only go
home if there is development of a home program, and only if
there is adequate parental support.

Section V requested information specifically addressing
attitudes regarding device use in the classroom. Of the 13
respondents, ten (77%) have very favorable attitudes about
devices being used in the classroom; two (15%) have somewhat
favorable attitudes; and one (8%) has a somewhat unfavorable
attitude.

Respondents were asked to specifically describe
positive and then negative experiences with device use in
the classroom. The following are actual comments by the
teachers who participated in this study:

POSITIVE

1. I don't have to guess what the student is saying.

2. Devices give students a channel to communicate
needs and wants in a conversation. At times, they make
children feel more included in the group and they can
participate with other kids.

3. Devices allow students to participate and take turns with the group. They increase the amount of communication by the student.

4. I have one student who is now trying to communicate since we have been trying different devices. In between devices she stops talking. Also, a past student is now able to do academics and communicate more.

5. It has been a great help with monitoring reading skills. This is the only way we've been able to tell that the student is consistently reading words the same way each time.

6. Devices give children the mode to <u>express</u> themselves and initiate when otherwise it isn't possible. Hopefully, devices will enable the teacher to more clearly assess academic abilities.

7. When the children receive immediate reinforcement for device usage, it gives them more confidence. They speak more freely. Speech comes quicker and inappropriate behaviors decrease. They learn to share, take turns. Also, sentence length increases. Quick reinforcement increases the desire to learn and use the devices more frequently.

8. There is a child in my class that has formed a strong attachment and likes to use her device. She knows it is the best way for her to communicate with others.

9. The student on a touch-talker uses it very well. It's like a part of his body. He's lost without it. He's also beginning to develop a sense of humor. He told his father, "Take buns downstairs." Also, one night he sent himself to his room, "Go to room," when he was being a brat at home. He can tell us his needs and wants. He does most of his academics on the device also.

10. Through device usage, students learn the "power" of communication. Their self-esteem and independence increases, especially in dialogues with various partners.

11. I have seen great potential for success in many different devices and I look forward to continued implementation to help non-vocal students.

NEGATIVE

1. The information programmed into the device has been erased three times this year with no explanation of how or why it happened. Faulty device? It takes so much <u>time</u> to

set up, program, and use the device. I would like more training on using various devices.

2. It takes a lot of time to adapt, set up, change, fix, etc. The extra space that devices take up on a desk also limits what the child can do sometimes. It's difficult to train myself to use them effectively. Sometimes is easier not to use them.

3. It's hard when the equipment doesn't work and I don't have enough knowledge to fix it. It takes a few days to get the correct people in the fix it. Also, some equipment is loaned. We start to use it a lot and then we have to return it. There is a lack of funding to help students acquire their own.

4. Devices do not allow for quick, interactive conversation.

5. At times it's difficult and time consuming to hook up devices. We have yet to see the children in this particular class use them independently and functionally. It's discouraging.

6. Sometimes the children will push buttons just to be pushing and then they accidentally reprogram the devices. Then I'm stuck, because I don't always know what to do to reprogram.

7. The device's batteries are always dead or die in the middle of use. Students sometimes have to be forced to use them in order to communicate. It isn't worth the tantrums of the fight.

8. There has recently been a lot of breakdowns of the machine in my classroom. When the child uses it all day it causes major problems when it can't be used. Also, parents have had a very hard time learning the machine. I think there could by a better way to train parents and families of users. Or, when the machine is put in the home, this should be an ultimatum to families so they'll be forced to learn about the device.

9. One intro-talker was ruined by student misuse. The mother will not send it in to be fixed. She tells me they use it at home all the time. The student only has 40% accuracy on it. I know it is not used at home. Now we don't even have it at school. The talker doesn't belong to the school, so I feel it's out of my hands.

10. A lot of time is required to personalize the systems for individual use. Also, trying to find specific programs to meet individual student needs is difficult. It is sometimes hard to use the devices to their full potential.

Section VI contained questions relating to support services. Teacher responses were given on the basis of whether or not they receive adequate support in various areas regarding alternative communication devices. Results are shown in **Table 5.**

Support Services	Adequate Support		
	Yes	No	Don't Know
Funding	9	2	2
Repair	6	3	4
Maintenance	8	1	4
Initial programming of devices	11	2	0
Help establishing devices in functional routines	11	2	0
Help establishing devices in home environments	1	7	5
Programming changes to establish current needs of user	12	1	0
Other teacher personnel training	8	3	2

Table 5. Adequate support services for teachers regarding alternative communication devices.

Of the 13 teachers, eight (62%) are responsible the majority of the time for set up and/or programming of devices in their classrooms. Five (38%) reported that the

SLP was responsible for set up and/or programming the majority of the time. Also, twelve (92%) know how to program the devices used in their classrooms. Six respondents (46%) are aware of the funding sources for purchase and maintenance of devices; seven respondents (54%) are not. Those that are ware of funding sources report the following contributors: Independent Living Centers, Insurance groups, Easter Seals, and local clubs.

Respondents were also asked if they subscribe to any periodical or journal relating specifically to communication for the severely disabled. Twelve of the thirteen (92%) do not subscribe to any periodical or journal.

Section VII asked each teacher to reveal classroom methods and techniques regarding alternative communication devices. First of all, respondents were asked to give information regarding the data kept on device usage in the classroom. The following is a list of comments made by teachers regarding data collection:

DATA COLLECTION

1. I don't keep data.

2. The SLP keeps data on monthly logs.

3. I collect data on the accuracy of switch use on the devices. I also keep data on concept understanding, so I am able to set educational goals.

4. The SLP keeps the majority of the data.

5. I collect data on whether the student can find the key and sequence of vocabulary (percentages). I also keep data on switches and scanning accuracy.

6. No formal data is kept or collected in the classroom on device usage. The SLP keeps data on various tasks.

7. Data is taken daily by SLP on sounds and speech production.

8. For one student, no data is kept anymore. When he chooses to use it we encourage him and it is always out so it can be used. Another student is asked to find and use the talker to say something. He receives a (+) if done independently; he receives a (0) if help is needed.

9. All who are involved (SLP, teacher, aide) with the device user keeps data. It's recorded later.

10. The person working with the student keeps data. The data kept depends on the functioning level of the child. With one student, we record accuracy. With another, we record her choices.

11. A daily notebook is kept for programming needs of device users. No formal data is kept.

Next, respondents were asked what methods and techniques are currently being used to help facilitate improved device usage in the classroom. The following list of methods and techniques was taken directly from teacher comments on the questionnaire:

METHODS AND TECHNIQUES

1. I expect the student to use the device. I do not play guessing games. I think it's important to be consistent. You need to spend time daily one-on-one to assure proper use and accuracy.

2. I make sure that devices are always accessible for student use. I teach the student what specific pictures mean. If the student pushes, "I want a drink," then I go get a drink.

3. The most important thing is peer modeling and teacher modeling, and to use it throughout the day. I also use physical prompting if necessary.

4. I use precision teaching timings--the student must read a passage word for word through the combination of touch-talker use, gesture, signing, and pointing to pictures at a specific rate.

5. When I have the devices in the room, I try to use them whenever possible so I can evaluate the equipment for further use.

6. I try to be consistent. Sometimes I change the placement of switches to add variety. I also use computer games and conversational speech with peers as motivation to use devices functionally.

7. I think it's important to monitor dialogue contacts.

8. Trial and error, trial and error, trial and error. I try to get the students to use devices in specific areas to improve accuracy (reading, social interaction).

Finally, respondents were asked to report any helpful, self-discovered techniques or methods that have facilitated device use in the classroom. The following is a list of these techniques and methods respondents have found helpful in facilitating device use in the classroom:

SELF-DISCOVERED TECHNIQUES

1. I have found the best thing to do is to get a balance between "social", "play", and "education ", and keep trying new ways to make it work.

2. To create a desire for the student to communicate, especially with their peers.

3. I just try to remember to always have the device out and accessible to the student.

4. Using the touch-talker during precision teaching timings and for oral reading has been the most helpful.

5. Peer modeling has helped one child immensely. Being able to turn to an augmentative specialist for help and training is the most helpful.

6. We use nondisabled peers to help children on both computers. This is a reinforcer for both the device user and their peers. Also, if you can get a child to laugh, he will perform better on the device, especially if it's the child's first time on the specific device or system.

7. Playing with the device is easier and more beneficial to me than reading a manual. If I know about it and play with it, I can get it do what I need.

8. Provided motivation and reinforcement for the children. Give them challenging opportunities to communicate with various individuals.

Section VIII, the final section of the questionnaire, requested respondents to offer their opinion of how well device use has been accepted by different groups of people. **Table 6** represents answers given by the thirteen teachers.

Group	Acceptance of Devices				
	Very Accepted	Somewhat Accepted	Somewhat Unaccepted	Very Unaccepted	Not Sure
School Peers	8	5	0	0	0
Parents	3	8	2	0	0
Other Teachers and School Personnel	4	5	1	0	3
General Public	1	2	1	0	9

Table 6. Acceptance of alternative communication devices by various groups.

In general, according to the respondents' opinions, devices are very accepted by school peers, somewhat accepted by parents, and also accepted by other teachers and school personnel. However, respondents were not sure about acceptance of device use by the general public. During verbal interaction with teachers, it was found that there is a general lack of parental support.

DISCUSSION

It is clear that the field of augmentative and alternative communication is an area of rapid development. With continuing research and application of technological aids and devices, society; particularly peers, parents, and teachers, can realize the numerous benefits for non-vocal children. These children will have the opportunity to experience increased personal independence, improved learning, increased productivity, and enhanced personal satisfaction. These numerous benefits and successful use of devices require the acceptance of alternative communication systems and aids by teachers, parents, peers, and society in general. Given that special education teachers serve as primary communicative partners, appropriate educational programming for children with severe language and speech disabilities needs to include methods and techniques facilitating the acquisition of communicative behaviors for alternative communication device users. From the responses

to this questionnaire, some major findings could be extracted.

First, it is encouraging to discover that the majority of respondents (62%) have experience with computer systems. Also, all respondents have had various training regarding personal computers through college courses, inservice training, and self-teaching methods. A previous background and knowledge of personal computers may help teachers to better understand alternative communication systems. It may be easier for teachers to learn how to set up, program, and troubleshoot various devices.

The results of the present study revealed that the majority of teachers (62%) have had training or classes at a university regarding communication for the speechless. All respondents are also receiving or have received current training regarding alternative communication devices. However, this training is limited, and the duration of this training is rather short. In addition, only one teacher (8%) reported having received training at a university specifically regarding alternative communication devices. Therefore, these teachers are relying on receiving ongoing training from a speech-language pathologist, inservice training, and various workshops to gain knowledge and experience pertaining to alternative communication devices. Important to note here, training or classes specifically regarding alternative communication devices may not be part

of the curriculum for speech-language pathologists, as well as special education teachers. With an increased use of alternative communication devices in classroom settings, there may be a future need to include training in augmentative and alternative communication as a required part of university curricula.

Because there was a reported lack of training and information regarding alternative communication devices by the respondents, it is important to know what information and training would be most helpful for teachers in classroom settings. The majority of teachers (62%) feel that hands-on training and experience would be the best instructional method to learn how to use, maintain, program, and troubleshoot various devices. Most likely, teachers who receive adequate training and information regarding alternative communication devices will be able to better facilitate device usage in the classroom. With such a wide variety of different devices currently being used in the classroom, it is important for teachers to know how to use, maintain, set up, program, and troubleshoot all devices used in their classrooms.

The results of this study have also demonstrated that the majority of devices (77%) are being used less than 50% of the entire school day and only in a limited few environments, mainly one-on-one with the teacher, one-on-one with the aide (s), during classroom instruction, and one-on-

one with peers. Also, the majority of devices (77%) are not
used at home communicatively, mostly because the devices do
not go home at the end of the school day. For some of these
children, an alternative communication device is their
primary means of communicative interaction. If they are not
using their devices for a good portion of the day, then the
amount of communicative interaction is probably
significantly low.

Of interest were the results of teacher attitudes and
experiences with device use in the classroom. The majority
of teachers (77%) have very favorable attitudes about
devices being used in the classroom. Also, all teachers
have had positive experiences with device usage in the
classroom, but they have had negative experiences too. Most
of these negative experiences can be associated with a lack
of training, knowledge, and information regarding
alternative communication devices. This implies that
positive attitudes about nonspeaking individuals and device
usage in the classroom is ineffective if there is a lack of
knowledge and information to help facilitate that device
usage in classroom settings.

Interestingly, 62% of the teachers in this study are
responsible the majority of the time for set up and
programming of devices in their classroom. However, as
mentioned earlier, teachers reported a lack of training in
knowing how to use, maintain, set up, program, and

troubleshoot alternative communication devices.

Another major focus in the questionnaire addressed methods and techniques currently being used to help facilitate device usage in the classroom. The teachers in this study have had to rely on a variety of methods and self-discovered techniques to help facilitate device usage. They have tried to use a lot of modeling, reinforcement and motivation for device users, and accessibility of devices to create more opportunities for communicative interaction.

This study sought to identify problems and problem solutions with teacher acceptance of alternative communication devices, and to determine how teachers can more successfully accept and respond to alternative communication devices used in classroom situations. Obviously, there is a lack of training, knowledge, and information for teachers regarding the use, set up, programming, maintenance, and troubleshooting of alternative communication devices. Another purpose of this study was to generate an outline for an inservice training from the data gathered through the questionnaire. This outline reveals various techniques, attitudes, and helpful information for facilitating the acceptance of alternative communication devices (See Appendix C).

Through an increase of training and information, teachers, peers, parents, and society will gain a better understanding of alternative communication devices and how

they can benefit non-vocal children who use devices as a

primary means of communication. Once given acceptance and

support in all experiences--laughing and crying, failing and

succeeding, happiness and frustration, children who use

alternative communication devices will have a greater chance

to experience positive self-image, independence, and

fulfilling lives. In addition, they may well become

competent communicators.

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Appendix A
Letter of Transmittal

Tracie Empey
240 East 400 North #31
Logan, Utah 84321

March 23, 1992

Dear Teacher:

I am currently enrolled as a senior student in the
Department of Communicative Disorders honors program at Utah
State University. I am in the process of writing my senior
thesis, entitled "Facilitating the Acceptance of
Augmentative/Alternative Communication Devices in the
Classroom". The attached questionnaire is part of my study.
Through this study I am attempting to target problems and
problem solutions with teacher acceptance of
augmentative/alternative communication devices. The further
purpose of the study is to determine how teachers can more
successfully accept and respond to these devices used in the
classroom situation.

I am particularly interested in obtaining <u>your</u>
responses. Your experience and success with
augmentative/alternative communication devices will
contribute significantly. You were selected to participate
in this study based on the success you've had in your
classroom with children using devices.

Could you complete the enclosed questionnaire by March
27th? I will return on that day to collect the
questionnaire data. Your responses will be held in the
strictest confidence.

Based on data gathered from the questionnaire and an
extensive literature review, I will develop an outline for
inservice training on this subject. The training will be
for teachers and others in the educational system revealing
helpful information and techniques that may facilitate the
acceptance of augmentative/alternative communication devices
in the classroom.

Thank you for your time and cooperation. If you have
any questions, you can reach me at 752-7418.

Sincerely,

Tracie Empey

Appendix B--QUESTIONNAIRE

USE AND ACCEPTANCE OF AUGMENTATIVE/ALTERNATIVE
COMMUNICATION DEVICES IN THE CLASSROOM

****
Augmentative and Alternative Communication refers to systems
used to enhance, supplement, or substitute for the speech of
individuals with severe speech impairments. For the purpose
of this questionnaire, we are most interested in teacher
experience and training regarding communication devices that
are <u>electronic communication aids</u> (ie: computers used for
communication purposes in classroom settings).
****
Section I: General Information

1. Name (optional)_____

2. School district_____

3. Grade (s) currently teaching_____

4. Special education certification

   a. mild   c. severe
   b. moderate   d. other_____

5. Total number of years teaching_____

6. Total number of years teaching special education_____
****
Section II: Educational Background and Computer Experience

7. Type of degree (Bachelor's, Master's, etc.)_____

8. Major_____

9. Do you regularly use a personal computer at school?

   a. yes   b. no

10. If yes, approximately how much time do you spend each
    day performing any function on this computer?

   a. 1/2 hour-1 hour   e. 4 - 5 hours
   b. 1 - 2 hours   f. 5 - 6 hours
   c. 2 - 3 hours   g. 6 hours or more
   d. 3 - 4 hours   explain_____
                               _____

11. Do you regularly use a personal computer at home?
   a. yes   b . no

12. If yes, approximately how much time do spend each day
    performing any function on this computer?

    a. 1/2 hour-1 hour   e. 4 - 5 hours
    b. 1 - 2 hours   f. 5 - 6 hours
    c. 2 - 3 hours   g. 6 hours or more
    d. 3 - 4 hours   explain_____

                                                  _____

13. Previous computer experience. List type of coursework
    taken regarding general computer use (ie: university,
    continuing education, in-service, independent study,
    self taught, etc.).

_____
_____
_____
_____
_____
_____

****
Section III: Previous Experience and Training with
**   Alternative and Augmentative Communication**
**   Systems**

14. List any previous training you have received in any
    aspects of communication for the speechless (ie:
    university classes, in-service training sessions,
    teacher workshops, personal training from SLP, etc.)
    Please also note the approximate duration for <u>each</u> of
    these training experiences (For example: personal
    training from SLP- 2 hours).

              <u>Training</u>   <u>Duration</u>

_____   _____
_____   _____
_____   _____
_____   _____
_____   _____
_____   _____

15. List any previous training you have received
    <u>specifically</u> regarding alternative communication
    devices (ie: electronic communication, computer-aided
    devices). Please also note the approximate duration
    for <u>each</u> of these training sessions.

              <u>Training</u>   <u>Duration</u>

_____   _____
_____   _____
_____   _____

_____   _____
_____   _____
_____   _____

16. What <u>additional</u> training and/or information would have been helpful to you in your particular classroom setting with disabled children?_____
_____
_____
_____
_____
_____

17. What type of instructional method (s) would have best met this need?
_____
_____
_____
_____
_____
_____

****

Section IV: Experience With Children Using Devices Use In Your Classroom

18. How many students are <u>current</u> device users in your classroom?_____

19. What additional number of children have you had in your classroom in the past who used alternative communication devices?_____

20. List the devices <u>currently</u> being used in your classroom.
_____
_____
_____
_____

21. How many children in your classroom have used or are using these devices <u>functionally</u> in daily communication routines?
_____

22. In what environments are these devices used?   Circle all that apply.

        a.   on the school bus
        b.   one-on-one with the teacher
        c.   one-on-one with the aide (s)
        d.   one-on-one with peers
        e.   in the lunchroom

      f.   during snack-time
      g.   during free-play
      h.   during classroom instruction
      i.   during recess
      j.   during P.E.

23.   Approximately what percentage of time are these devices used across an entire school day?

a.	0 - 10%	f.	50 - 60%
b.	10 - 20%	g.	60 - 70%
c.	20 - 30%	h.	70 - 80%
d.	30 - 40%	i.	80 - 90%
e.	40 - 50%	j.	90 - 100%

24.   Do the devices usually go home at the end of the school day?

     a. yes   b. no

25.   Are the devices usually used at home communicatively?

     a. yes   b. no   c. don't know

26.   If not, do you think the devices should go home?

     a. yes   b. no   c. don't know

****
Section V: Attitudes Regarding Device Use In Your Classroom

27.   In general, what is your attitude about devices being used in the classroom?

     a.   Very favorable
     b.   Somewhat favorable
     c.   Somewhat unfavorable
     d.   Very unfavorable
     e.   Not sure

28.   In two short paragraphs, specifically describe your _positive_ and then your _negative_ experiences with device use in your classroom.

POSITIVE: _____
_____
_____
_____
_____
_____
_____
_____

NEGATIVE: _____
_____
_____
_____
_____
_____

****

Section VI: Support Services

29. Do you receive adequate support regarding alternative
     communication devices in the following areas?

     Yes No Don't know   1. Funding
     Yes No Don't know   2. Repair

     Yes No Don't know   3. Maintenance
     Yes No Don't know   4. Initial programming
                                  of devices
     Yes No Don't know   5. Help establishing
                                  devices in functional
                                  routines
     Yes No Don't know   6. Help establishing
                                  devices in home
                                  environments
     Yes No Don't know   7. Programming changes
                                  to establish current
                                  needs of user
     Yes No Don't know   8. Other teacher
                                  personnel
                                  training

30. Who is responsible for the devices in your classroom
     the majority of the time (ie: set-up and/or
     programming)?

     _____

31. Do you know how to program the devices used in your
     classroom?

     a. yes   b. no

32. Are you aware of the funding sources for purchase and
     maintenance of devices?

     a. yes   b. no

33. If yes, specify.

     _____
     _____

34. Do you currently subscribe to any periodical or journal relating specifically to communication for the severely disabled?

    a. yes   b. no

35. If yes, specify.

    _____
    _____

****

Section VII: Classroom Methods and Techniques

36. List information regarding the data kept on device usage in your classroom (ie: who keeps data, what is recorded, how data is collected, etc.)

    _____
    _____
    _____
    _____
    _____
    _____
    _____

37. What methods and techniques are you currently using to help facilitate improved device use in the classroom? (be specific)

    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

38. During all your experiences with device use in the classroom, are there any helpful, self-discovered, techniques or methods that have facilitated device use in the classroom?

    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____
    _____

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**Section VIII: Acceptance of Augmentative and Alternative
                 Communication Devices**

39. In your opinion, how well has device use been accepted
     by school peers?

     a. Very accepted   c. Somewhat unaccepted
     b. Somewhat accepted   d. Very unaccepted
                                e. Not sure

40. In your opinion, how well has device use been accepted by
     parents?

     a. Very accepted   c. Somewhat unaccepted
     b. Somewhat accepted   d. Very unaccepted
                                e. Not sure

41. In your opinion, how well has device use been accepted in
     the educational setting with other regular education
     teachers and school personnel (ie: administrators,
     librarians, cooks, janitors, secretaries, etc.)

     a. Very accepted   c. Somewhat unaccepted
     b. Somewhat accepted   d. Very unaccepted
                                e. Not sure

42. In your opinion, how well has device use been accepted by
     the general public?

     a. Very accepted   c. Somewhat unaccepted
     b. Somewhat accepted   d. Very unaccepted
                                e. Not sure

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Any Additional Comments:

Appendix C
Outline for Inservice Training

Facilitating Acceptance of Alternative Communication
Devices In Classrooms By Teachers

I.   Introduction/Welcome

II. Purpose of Inservice Training

   A. There is limited research describing successful
       techniques that can aid in facilitating acceptance of
       alternative communication devices by teachers in
       classroom settings.
   B. This training session will reveal the following:

       1.   various techniques for facilitating device
            acceptance

       2.   attitudes regarding alternative communication
            devices

       3.   helpful information for facilitating the
            acceptance of alternative communication
            devices

III. Methods and Techniques to Help Facilitate Improved Device
     Usage In the Classroom

   A. Make sure that devices are always accessible for
       student use.

   B. If the student asks for something by pushing switches
       or buttons on the device, get it for him. This will
       teach the student what specific buttons or pictures
       mean.

   C. Spend time daily one-on-one with device users to
       assure proper use and accuracy.

   D. Be consistent.

   E. Use peer modeling and teacher modeling throughout the
       day. Use physical prompting if necessary.

   F. Try to use the device whenever possible so the
       student is exposed to a variety of environments and
       communicative partners.

   G. Try to use various reinforcers and motivators to
       increase functional use of communication devices.

IV. Attitudes Regarding Device Usage In the Classroom

    A. Special education teachers' attitudes and acceptance of devices are very favorable.

    B. However, there is a lack of training, knowledge, and information regarding device usage.

        1. Lack of information affects general acceptance of devices.

        2. How to gain additional knowledge and information:

            a. research existing literature

            b. communicate with other teachers regarding device usage in the classroom

            c. subscribe to professional journals and newsletters (Augmentative and Alternative Communication Journal, Communication Outlook, Communicatiing Together, Augmentative Communication News)

            d. take advantage of opportunities to attend conferences, inservice trainings, and workshops regarding alternative communication devices

V. Helpful Information For Facilitating Acceptance of Alternative Communication Devices

    A. Relay your learned knowledge and information to parents and peers.

        1. creates a better understanding of device usage by parents and peers

        2. builds greater acceptance of devices in numerous environments

    B. Don't be afraid to use inventive and new methods or techniques to facilitate increased device usage.

    C. Implement device usage in as many settings and situations as possible.

        1. provides more opportunities for child to communicate while using the device

2. gives the child opportunities to interact with a numerous variety of communicative partners

VI. Conclusion

A. Increased knowledge, training, and information leads to greater acceptance of device usage in the classroom.

B. Take advantage of the numerous ways and opportunities to learn about the rapidly growing field of augmentative and alternative communication.

AUGMENTATIVE COMMUNICATION NEWS:
an independent, non-membership publication.
Published by Sunset Enterprises
One Surf Way, Suite #215
Monterey, CA 93940
Subscriptions: By personal check U.S. $37 (1 yr), U.S. $67 (2 yrs), U.S. $97 (3 yrs). Single issue $8.
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